A User's Guide to the 'One Window' Process for Mine Development Approvals

Nova Scotia Department of Natural Resources
Mineral Resources Branch
Information Circular ME 56, 1997

This guide to 'one-window' process is a convenient reference for government review of mine development projects. Project proponents are referred to the ***Mineral Resources Act and Regulations,*** the ***Environment Act and Regulations,*** and the ***Occupational Health & Safety Act and Regulations*** for more detailed information. The aforementioned acts and regulations take precedence wherever discrepancies may occur with the general information in this guide.

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Preface

The Government of Nova Scotia has undertaken a 'one window' process for reviewing, permitting and monitoring mine development projects in Nova Scotia. This approach formalizes how government departments involved with mine development activities act collectively to streamline the review process for both government and the mining industry.

This 'one window' process facilitates an informed, timely and consistent review of new and existing mining projects in the province. The various departments involved in this process include the Nova Scotia Department of Natural Resources, Nova Scotia Department of the Environment, and Nova Scotia Department of Labour, plus other provincial, federal and municipal government agencies as determined on a project-by-project basis. Government representatives from Natural Resources, Environment and Labour have formed a 'One Window' Standing Committee, which is responsible for the 'one window' functions within government.

This user's guide has been prepared by the Department of Natural Resources to assist interested parties in understanding the approvals process for mine development in Nova Scotia. The guide contains information on environmental approvals, mining leases and mining permits, requirements for regulatory monitoring over the life of the project; and site reclamation requirements. The guidebook focuses on the early stages of project screening. Thorough planning and implementation provide the strongest likelihood for the start of a successful mining venture in Nova Scotia.

This guide presents a description of the 'one window' process and explains the roles of key government departments. The Environmental Assessment process is described as it applies to mine development projects, including details of its intent and an overview of the various stages. A description of the necessary licences, leases, permits and approvals is supplied together with the information requirements for each, as well as a list of government contacts.

An information package, encompassing most of the relevant Acts and Regulations related to mine development, is available in the Department of Natural Resources library in Halifax.

The Government of Nova Scotia believes that mineral development is essential to the economic future of the province. This practical user's guidebook is intended to assist proponents and regulators alike in contributing to that future.

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1. The 'One Window' Process

1.1 Introduction

The mineral industry is a major contributor to the economy of Nova Scotia. In the interest of encouraging future mineral development, the provincial government has sought to make the process of review, permitting and approval more efficient.

Mining projects must respect environmental and occupational health and safety standards. Mine development projects must be safe and environmentally prudent; however, the regulatory review process must be free of unnecessary procedures that may unduly hinder development of the project or discourage its proponents.

Mining projects in Nova Scotia are subject to a variety of statutes, which are administered by several government departments. In 1994, the Province of Nova Scotia initiated the design of a 'one window' process to reviewing, permitting, and monitoring mine development and mine closure projects. The overall goal has been to simplify the review process for both the mining industry and the government. The 'one window' process provides for interaction among various government departments and with the mine development proponent, making the review process more consistent and expedient for all. The three government agencies at the forefront of the 'one window' process are:

- Nova Scotia Department of the Environment,
- Nova Scotia Department of Labour, and
- Nova Scotia Department of Natural Resources.

Other government representatives may become involved, depending on the nature of the development project. The Nova Scotia Economic Renewal Agency, Nova Scotia Department of Transportation and Public Works, Environment Canada, and Fisheries and Oceans Canada are examples.

In general terms, this 'one window' process includes the following steps (Fig. 1):

- initial meetings between government representatives and the mine development proponent,
- registration and completion of the Environmental Assessment process,
- applying for the required leases, permits and approvals,
- regulatory monitoring and inspection over the life of the project, and
- regulatory monitoring and inspection during closure and reclamation.

Figure 1:

A brief outline of the "one window" process for mine development approvals.

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1.2 Objectives of the 'One Window' Process

The 'one window' process is designed to facilitate cooperation between government

departments, improve efficiency, and reduce jurisdictional overlap. It facilitates communication between industry proponents and government. At the same time the process helps to ensure that no significant issues are overlooked.

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2. Department Responsibilities

This section presents a brief overview of the key departments' responsibilities with respect to mining projects.

2.1 Department of Natural Resources (DNR)

DNR is most often the first point of contact in government for someone interested in mineral rights or mineral development.

DNR's role with respect to mineral exploration and mining is management of the province's mineral resources. Activities associated with this role include generation and distribution of geological information, promotion of the province's mineral resources, and administration and regulation of mineral exploration and mining in Nova Scotia. DNR's regulatory responsibility is based on the ***Mineral Resources Act and Regulations.*** Other issues within DNR's mandate that may relate to mining include crown land access, park and wildlife considerations, and forestry. DNR permits and approvals include prospector registration, Exploration Licences, Excavation Permits, Letters of Authority, Mining Leases, Mining Permits, Milling Permits, Access Permits (Crown lands), and permits under the ***Beaches Act*** and ***Crown Lands Act.***

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2.2 Department of the Environment (DOE)

DOE has prime responsibility for all environmental issues including the Environmental Assessment process, environmental approvals, and environmental compliance monitoring. Regulatory responsibility comes under the ***Environment Act and Regulations.*** Mining projects require formal Environmental Assessment approval before being allowed to proceed. Advanced exploration and mining projects usually require an Industrial Approval and sometimes a Water Approval and an approval to construct and operate sewage works or a sewage system.

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2.3 Department of Labour (DOL)

DOL'S responsibilities include occupational health and safety (OH&S), industrial relations, labour standards, public safety and fire prevention. Regulatory authority for OH&S is based on the ***Coal Mines Regulation Act, the Metalliferous Mines and Quarries Regulation Act*** and the ***Occupational Health & Safety Act and Regulations.*** The OH&S legislation is based on the principle of internal responsibility through 'workplace parties', which include any person working on a project or contributing components to a project. DOL's role is to

establish and clarify the responsibilities of workplace parties under the law, to support them in carrying out their responsibilities, and to intervene appropriately when those responsibilities are not carried out.

To the extent possible, DOE, DOL and DNR will provide technical assistance to each other. However, the decision-making authority for matters related to the environment, occupational health and safety, and resource management will continue to rest with DOE, DOL and DNR, respectively.

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3. Government Contacts

Name	Location	Telephone
'ONE WINDOW' STANDING COMMITTEE		
Chairperson, Manager - Mining Engineering (DNR)	1701 Hollis Street, Halifax, Nova Scotia	902-424-8153
DNR Representative	1701 Hollis Street, Halifax, Nova Scotia	902-424-8152
DOE Representative	5151 Terminal Road, Halifax, Nova Scotia	902-424-2560
DOL Representative	5151 Terminal Road, Halifax, Nova Scotia	800-952-2687
NOVA SCOTIA DEPARTMENT OF NATURAL RESOURCES	P. O. Box 698, 1701 Hollis Street, Halifax, Nova Scotia B3J 2T9	
General Information		902-424-8188
Executive Director, Minerals & Energy		902-424-7943
Director of Mines and Energy Development		902-424-5618
Manager, Mining Engineering		902-424-8153
Registrar, Mineral & Petroleum Titles		902-424-8155
Regional Geologist, Eastern	300 Mountain Road, Coxheath/Sydney, Nova Scotia B1L 1A9	902-563-3370
Regional Geologist, Central	626 College Road, Bible Hill, Nova Scotia B2N 2R2	902-752-8429
Regional Geologist, Western	99 High Street, Bridgewater, Nova Scotia B4V 1V8	902-543-8167
Core Library	Acheron Court, Stellarton	902-752-4842
Area Offices		
Bridgewater	Provincial Building, 99 High Street, Bridgewater, Nova Scotia B4V 1V8	902-543-8167
Tusket/Yarmouth	P. O. Box 99, Tusket, Nova Scotia B0W 3M0	902-648-3526

Lawrencetown	P. O. Box 130, Lawrencetown, Nova Scotia B0S 1M0	902-584-2229
Kentville	Provincial Building, 136 Exhibition Street, Kentville, Nova Scotia B4N 4E5	902-679-6097
Waverley	Box 23, Site 2, R. R. #1 Waverley, Nova Scotia B0N 2S0	902-861-2560
Middle Musquodoboit	P. O. Box 112, Middle Musquodoboit, Nova Scotia B0N 1X0	902-384-2290
Bible Hill/Truro	626 College Road, Bible Hill, Nova Scotia B2N 2R2	902-893-5620
Parrsboro	P. O. Box 428, Parrsboro, Nova Scotia B0M 1S0	902-254-3241
McLellan's Brook	P. O. Box 457, New Glasgow, Nova Scotia B2H 5E5	902-752-3181
Coxheath	300 Mountain Road, Sydney, Nova Scotia B1L 1A9	902-563-3370
St. Peter's	Provincial Bldg, P. O. Box 363, St. Peter's, Nova Scotia B0E 3B0	902-535-2032
Baddeck	Provincial Building, P. O. Box 610, Baddeck, Nova Scotia B0E 1B0	902-295-2554
Antigonish	Beech Hill, R. R. #7 Antigonish, Nova Scotia B2G 2L4	902-863-4513

NOVA SCOTIA DEPARTMENT OF THE ENVIRONMENT	P. O. Box 697, 5th Floor, 5151 Terminal Road, Halifax, Nova Scotia B3J 3B7	
General Information		902-424-5300
Director, Regional Offices		902-424-2548
Director, Resource Management & Environmental Protection		902-424-2385
Director, Environmental Support Services		902-424-2316
Manager, Environmental Management Support Services		902-424-2284
Manager, Ecosystem & Risk Management		902-424-3617
Regional Offices		
Central/Bedford	Suite 224, Sunnyside Mall, 1595 Bedford Highway, Bedford, Nova Scotia B4A 3Y4	902-424-7773
Northern/Truro	2nd Floor, IGA Building, 44 Inglis Street, P. O. Box 824, Truro, Nova Scotia B2N 5G6	902-893-5880
Eastern/Sydney	295 Charlotte Street, P. O. Box 714, Sydney, Nova Scotia B1P 6H7	902-563-2100
Western/Kentville	136 Exhibition Street, Kentville, Nova Scotia B4N 4E5	902-679-6086
District Offices		

Sheet Harbour	Fire Hall, P. O. Box 58, Sheet Harbour, Nova Scotia B0J 3B0	902-885-2462
Windsor	P. O. Box 908, 20 Gerrish Street, Windsor, Nova Scotia B0N 2T0	902-798-2096
Shubenacadie	P. O. Box 104, 5 Mill Village Rd., Room 208, Shubenacadie, Nova Scotia B0N 2H0	902-758-2097
New Glasgow	P. O. Box 675, Middle River Pumping Station, Granton Road, New Glasgow, Nova Scotia B2H 5E7	902-396-4194
Amherst	32 Church Street, 2nd Floor, Amherst, Nova Scotia B4H 3A8	902-667-6205
Port Hawkesbury	P. O. Box 603, Old Pulp mill Road, Port Hawkesbury, Nova Scotia B0E 2V0	902-625-0791
Antigonish	23 Bay Street, Suite 200, Antigonish, Nova Scotia B2G 2G7	902-863-2743
Baddeck	P. O. Box 6, Chebucto Street, Baddeck, Nova Scotia B0E 1B0	902-295-2159
Middleton	P. O. Box 1240, 142 Commercial Street, Middleton, Nova Scotia B0S 1P0	902-825-2123
Bridgewater	373 King Street, Bridgewater, Nova Scotia B4V 1B1	902-543-4685
Shelburne	P. O. Box 125, Loyalist Plaza, Shelburne, Nova Scotia B0T 1W0	902-875-2623
Yarmouth	13 First Street, Yarmouth, Nova Scotia B5A 2S9	902-742-8985
Liverpool	P. O. Box 9001, 255 Main Street, Suite 201, Liverpool, Nova Scotia B0T 1K0	902-354-5784
Digby	P. O. Box 481, Warwick Street, Digby, Nova Scotia B0V 1A0	902-245-2860
Lockeport	P. O. Box 158, Hayden Lake Water treatment Plant, Lockeport, Nova Scotia B0T 1L0	902-875-8630
NOVA SCOTIA DEPARTMENT OF LABOUR	P. O. Box 697, 6th Floor, 5151 Terminal Road, Halifax, Nova Scotia B3J 2T8	
General Information		902-424-8400
Occupational Health & Safety Division		902-424-5400
Toll Free Number		800-952-2687
Executive Director, Occupational Health & Safety		902-424-4328
Director, Central Services		902-424-8055
Director, Field Services		902-424-8181
NOVA SCOTIA ECONOMIC	1800 Argyle Street, Halifax, Nova	902-424-

RENEWAL AGENCY	Scotia B3J 3N8	8920
NOVA SCOTIA DEPT OF HOUSING & MUNICIPAL AFFAIRS	P. O. Box 216, 1601 Lower Water Street, Halifax, Nova Scotia B3J 2M4	902-424-4141
ENVIRONMENT CANADA	Fourth Floor, 45 Alderney Drive, Dartmouth, Nova Scotia B2Y 2N6	902-426-1855
FISHERIES & OCEANS CANADA	P. O. Box 550, Halifax, Nova Scotia B3J 2S7	902-426-2253

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4. Permits and Approvals

4.1 Permits/Approvals - Department of Natural Resources

Permits and approvals related to mineral resource management that are issued by DNR under authority of the ***Mineral Resources Act*** (MRA) include prospector registration, Exploration Licences, Excavation Permits, Letters of Authority, Mining Leases, Mining Permits, and Milling Permits. A requirement of all permits and approvals granted under authority of the MRA is that work must be conducted in compliance with the ***Occupational Health & Safety Act and Regulations*** and the ***Environment Act and Regulations.*** These MRA permits and approvals, together with relevant permits issued under other DNR legislation, are summarized below:

Prospector Registration: conveys the non-exclusive right to search and prospect for minerals with the landowner's permission on unlicensed, open ground. Only non-disturbance activity is authorized.

Exploration Licence: grants the exclusive right to search and prospect for minerals within a designated area. Activities can include prospecting and geological survey work, drilling, and minor excavation work (less than 1 metre in depth and without mechanized equipment).

Excavation Permit: grants permission to undertake limited surface or underground exploration or bulk sampling (removal of less than 100 tonnes of material).

Letter of Authority: extraction of a bulk sample of more than 100 tonnes of material requires an Excavation Permit and a Letter of Authority from the Director of Mines.

Mining Lease: grants the exclusive right to some or all of the mineral resources in a specific area but does not allow any field activity beyond basic exploration. An Excavation Permit, Letter of Authority, and/or a Mining Permit are available to permit excavation activity within the area contained in a Mining Lease.

Mining Permit: gives the right to mine some or all of the mineral resources granted within the Mining Lease, subject to the ***Mineral Resources Act*** and terms and conditions of the Mining Permit, the ***Environment Act,*** and the ***Occupational Health & Safety Act.*** The Mining Permit may cover an area less than the area covered by the Mining Lease.

Milling Permit: grants the right to process ore subject to compliance with all pertinent legislation including the ***Mineral Resources Act,*** the ***Environment Act*** and the ***Occupational Health & Safety Act.***

Access Permit: an Access Permit authorizes access to Crown lands for a specified purpose.

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4.2 Approvals - Department of the Environment

Mining projects require formal environmental assessment approval from DOE in accordance with the Environmental Assessment Regulations. Other DOE approvals that will likely be required for a mine include an Industrial Approval and a Water Approval.

The formal Environmental Assessment process for a mine proposal normally starts following advanced exploration, when the proponent has made the decision that geological and economic conditions warrant mine development. When a proponent has made this decision, the 'One Window' Committee will, through meetings with the proponent and meetings with other agencies as necessary, establish the information that should be included in the project's Environmental Assessment registration. The 'one window' process will continue throughout the Environmental Assessment at a level appropriate to the degree of assessment required for the project.

Full involvement of the 'One Window' Committee through the Environmental Assessment process will serve to reduce repetition of submissions by the proponent to the various government departments involved in the permitting processes. Information gathered in the Environmental Assessment could be required to support applications for other necessary approvals, such as an Industrial Approval, Water Approval or Mining Permit.

Industrial Approval: is required under the Activities Designation Regulations for industrial activities in Nova Scotia that have air, liquid, or solid waste disposal requirements associated with them. These include activities associated with minerals, mining and processing.

Water Approval: is required under the Activities Designation Regulations for the use or alteration of a watercourse or water resource. This approval includes, but is not limited to, withdrawal or diversion of water in an amount greater than 23,000 litres per day; storage of water in amounts of 25,000 cubic metres or greater; construction or maintenance of a dam, culvert, bridge, causeway, wharf, weir, or fishway; and modification of a surface water course.

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4.3 Role of the Department of Labour

The Nova Scotia Department of Labour concentrates its efforts on safe and healthy workplaces and work practices, and health and safety standards protecting the general public. The Occupational Health and Safety (OH&S) Division focuses on promotion of the internal responsibility system, which acknowledges the responsibility of employers, employees and other workplace parties for workplace health and safety. The OH&S Division, through information and enforcement, effects workplace and public health and safety through the following processes:

- promoting the primary responsibility of employers and employees to create a healthy and safe work environment;
- providing inspection, certification and enforcement services, particularly in support of internal responsibility;
- developing partnership through communication;

- enhancing client services;
- ensuring effective use of resources, and
- ensuring that legislation is kept up to date, responding to changes in workplace practices, procedures and technology.

OH&S Division staff enforce the minimum standards of the legislation. In addition to their regulatory role, they also encourage and promote compliance and negotiate the provision of services in excess of these minimum standards through inspection, investigation and orders.

In addition to OH&S and public safety, DOL is also responsible for industrial relations, labour standards, and fire prevention.

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4.4 Municipal Government

In addition to federal and provincial jurisdictions, Nova Scotia has a third tier of government: municipal government. Municipal government, which may represent a town, regional municipality, or county has responsibility for municipal development plans, planning strategies, building permits, streets and secondary roads, and municipal bylaws. Thus, for mine development, a proponent may need to obtain municipal permits and approvals.

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5. Mineral Rights and Land Access

5.1 Ownership of Minerals

Mineral rights in Nova Scotia are reserved to the Crown. 'Mineral' as defined under the ***Mineral Resources Act*** (MRA) includes all common mineral substances except ordinary stone, building stone, aggregates (both crushed and granular), peat or peat moss, ordinary soil, oil or natural gas and gypsum. As well, several deposits of limestone have specifically been declared a mineral under the MRA. Otherwise rights to limestone and all stone, sand, gravel, peat, soil and gypsum (but not anhydrite) are attached to ownership of the surface (private or Crown). When title to minerals for the purpose of production under the MRA is terminated for any reason, all minerals including those in the tailings and waste rock revert to the Crown.

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5.2 Identification of Mineral Rights

Mineral rights in Nova Scotia are acquired and referenced by means of a map-based staking system. The procedure eliminates the necessity of establishing claim lines on the ground and the attendant line cutting, blazing and flagging. If required, claim boundaries can be located in the field by a qualified surveyor, but this practise is seldom necessary, at least untl the actual mining stage is reached.

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5.3 Land Access

Most of the land throughout Nova Scotia is open for mineral exploration. Exploration is encouraged by government policy that emphasizes the importance of access and tenure to land by the mineral industry. In Nova Scotia the landowner has surface rights to the land but not the mineral rights; mineral rights are reserved to the Crown. Access to land for mineral exploration requires the land owner's permission.

Although most land in Nova Scotia is available for mineral exploration and development, there are some areas where mineral activity is restricted or prohibited. Areas where mineral exploration and mining are prohibited include Federal and Provincial Parks, Park Reserves and Protected Areas, Ecological Areas and Protected Beaches. Areas where mineral activity is permitted but may be restricted or allowed only under special conditions include Provincial or National Wildlife Management Areas, Nature Conservancy Areas, Designated Water Supply Areas, Major First Nation Reserves, Major Airports, and Abandoned Rail Corridors.

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5.4 Access to Crown Lands

In order to access Crown lands for the purpose of mineral exploration, the project proponent should contact the Area Supervisor at the DNR Area Office for an Access Permit. An Access Permit authorizes access to Crown lands for a specified purpose.

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6. Initial Meeting with Government

The 'one window' process has been implemented by the Province of Nova Scotia to make the review process for mine development projects efficient for both the mining industry and government. A flow chart illustrating the 'one window' approval process for mine development is shown in Figure 2.

Figure 2:

Flow Chart illustrating the 'one window' process for mine development approvals.

The proponent of a mine development project is encouraged to make initial contact with the Chairperson of the 'One Window' Standing Committee, the DNR Manager of Mining Engineering. This DNR representative will then arrange an initial, informal meeting with the 'One Window' Committee. Through discussions between the proponent and the committee, additional regional representatives of these departments, and other government officials as appropriate, may also be invited to this initial meeting.

The purpose of the initial meeting is for the proponent to provide an overview of the new project. The tone of the meeting should be informal. Representatives of the various government departments want to be informed of the proponent's plans and they will use this meeting to advise and assist the proponent to understand regulatory matters from each of the departments. Discussion items at this initial meeting may include:

- scope of the development project;
- general work plan and project management schemes;
- description of proponent's staff, consultants, and contractors;
- environment and workplace health and safety;
- emergency planning;
- water courses in the area;
- mineral titles and leases; and
- excavation, milling and tailings plans.

The 'One Window' Committee will then discuss any significant issues and answer questions the proponent may have regarding the review, approval and permitting processes. At the conclusion of this initial meeting the Department of the Environment makes an important decision:

Will the project have to be registered under the Environmental Assessment process?

If the nature of the project is such that it must be registered under the Environmental Assessment Process, the proponent will be advised at this time.

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7. The Environmental Assessment Process

7.1 Environmental Protection

Mineral development in Nova Scotia is encouraged by government, but it must be done with an eye to protection of the valuable and often delicate natural environment. A balance must be struck among the economic benefits of the development, environmental concerns, and social values.

Experience has shown that early identification of the salient issues is a cost-effective approach to development. The review process brings any potential problems into focus, long before the development begins.

Environmental Assessment is a process whereby the impact of a project on the surroundings is evaluated before the project is allowed to proceed. The purpose is three-fold:

- protect the environment and quality of life for the people of Nova Scotia,
- provide for an early environmental assessment of undertakings, and
- provide for public consultation.

A key person in the process is the Environmental Assessment Administrator, a staff member of the Department of the Environment who is responsible for administering the Environmental Assessment Regulations.

Since the environment is an important consideration in the planning of all projects, early review of a project should include an initial evaluation of the potential for environmental problems. Some small operations may not require sophisticated or extensive assessment, but mine developers should make a real effort to uncover any concerns that may become obstacles during the Environmental Assessment or approvals process.

One way to ensure that potential issues are brought to light is to invite public comment early

in the planning stages. To this end, the Nova Scotia Department of the Environment maintains regulations, providing for an Environmental Assessment process. This process provides an opportunity for government review agencies and the public to evaluate the environmental, social and economic impacts of a proposed undertaking.

Prior to registering for the Environmental Assessment process, the proponent will find it useful to meet again with the members of the 'One Window' Committee. At this meeting, the Committee and the proponent can finalize topics that should be addressed in the registration document. The proponent should have already collected some early feedback from community members most likely to be affected by the development, in order to properly address their concerns in the registration document.

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7.2 Planning for Public Input

With today's trend toward increased public participation in all aspects of economic activity, residents who may be impacted by a mine development project must be given an opportunity to evaluate and comment on the predicted environmental, social and economic impacts of the project.

Several benefits start to accrue for the project management team when public contact is established early in the planning stages:

- Better informed decisions can be made by the proponent when all of the concerns and issues are on the table.
- Critical issues and constraints are identified early and solutions can be developed when there is time to plan, before a high stress, reactive situation develops.
- Getting ready for public release of the company plans encourages the company to examine project objectives in-house, thereby building internal consensus and reinforcing a sense of team effort.
- Hidden, but valid constraints (and compromise solutions) are sometimes uncovered early by the public.
- Public misunderstanding of the project can be avoided, putting false issues quickly to rest.
- Public commitment to the project can be enhanced if early involvement is seen by the community as fostering a shared participation in the benefits from the project.

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7.3 Environmental Mediation and Consensus Building

A program of public involvement may use several techniques, each designed to reach a different segment of the community. The most effective of these techniques include: education, consultation, joint planning, feedback.

Drawing representing the education, consultation, joint planning, feedback loop

For each project, the program of public involvement must be scaled to the scope of the project. In general, the larger the project, the more time must be made available and the more

detail must be provided.

In practice, the process of consensus building involves informal discussions, resulting in a good level of understanding on both sides. Early, informal consultation inside the community usually pays dividends as the project proceeds. It is wise to stay in touch frequently with the people and the groups most likely to be affected. Community response should become an "early warning system" for project management.

As the development project evolves, the following checklist provides a useful evaluation of the effort to encourage public involvement:

- Are the public comments reflected in project decisions and plans?
- Has a broad range of interest groups been included?
- Will the public be informed of continuing operations? How?
- Are company documents written and presented in plain language?
- Are the public concerns revisited from time to time?

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7.4 Stages of the Environmental Assessment

Most industrial development projects are grouped as either CLASS 1 or CLASS 2.

CLASS 1 projects may or may not be of such magnitude that a full Environmental Assessment is required. These include industrial projects, mining developments, and small-scale highway construction.

CLASS 2 projects are major industrial projects, energy developments, major transportation corridors, or waste disposal projects. Such undertakings always require a full Environmental Assessment with public hearings, as they have the potential to cause significant environmental impact. The public hearings are conducted by the Environmental Assessment Board. This Board consists of people selected from various professional, industrial and labour groups. It acts independently of the Department of the Environment and reports directly to the Minister of the Environment.

This guidebook focuses on CLASS 1 projects. A flow chart diagram of the environmental assessment process for CLASS 1 undertakings is shown in Figure 3.

Figure 3:

Flow Chart illustrating the Environmental Assessment process for Class 1 undertakings.

CLASS 1 PROJECTS

Registration and Advertising

If the initial meeting with the 'One Window' Committee has determined that the development is an "undertaking" under the Act, the proponent must register the project with the Department of the Environment. Within 7 days of the project's registration, the proponent must publish a Notice of Registration in a provincial and local newspaper, which informs the

public how to obtain details of the registration. Copies of these newspaper advertisements must be provided to the Environmental Assessment Administrator within 14 days of their appearance in the papers.

Screening

CLASS 1 projects are subjected to a screening process to allow input from various government agencies and the public. This information is received by the Administrator, and is used to determine if further environmental information is required to assess the project.

Government Directives for Subsequent Action Within 25 days of the project's registration, after having reviewed all pertinent information, the Minister must issue one of the following five directives:

Directive 1. **The project is approved** to proceed

If there are deemed to be no adverse effects or no significant environmental concerns that may be caused by the undertaking, or the proponent has reasonably demonstrated that any concerns can be mitigated, the project may be approved to proceed. Some conditions may be attached to the project's release.

The proponent must obtain any other required permits and approvals before commencing work. The approval granted at this stage is also conditional that the project be started within two years, or it will be required to re-register for Environmental Assessment.

Directive 2. **More information is necessary**

The proponent might be advised that insufficient registration material has been submitted and that more detail of the project must be supplied, in the form of an addendum to the original registration information. The Minister will then advise the proponent, within 25 days of receiving the addendum, if the project can proceed or if further environmental impact studies are required.

Directive 3. **A Focus Report** is necessary

If the initial review indicates that there may be limited adverse effects or environmental problems, a Focus Report may be required to address these issues. The Focus Report will concentrate on specific issues arising from the registration document.

Within 25 days of the call for a Focus Report, the Environmental Assessment Administrator shall provide the terms of reference for this report to the proponent. The Focus Report must be submitted to the Administrator within one year, unless the proponent has applied for an extension and it has been specially granted by the Minister.

Within 12 days of receiving the Focus Report, the Environmental Assessment Administrator publishes notice in a local and provincial newspaper inviting the public to comment on the contents of the Report. Public comments must be received in writing by the Administrator within 30 days of the newspaper publication. At this point, the Administrator summarizes public comments, as well as advice from provincial, federal and municipal levels of government, and forwards the summary to the Minister. The Administrator may recommend approval of the project (as in directive 1) if there are no adverse effects or no significant environmental concerns, or may recommend further environmental study. This recommendation from the Environmental Assessment Administrator is made within 25 days

of the deadline for receiving public comment.

The Minister's decision is made within 14 days after receiving the report and recommendation from the Administrator.

Directive 4. **An Environmental Assessment Report (EAR)** is required

An Environmental Assessment Report may be required if there is the potential for adverse effects or significant environmental concerns. Examples of the criteria used to determine the need for a full Environmental Assessment Report include:

- location, size, and scope of the project,
- nature and sensitivity of the area, or
- outstanding public concerns.

The EAR involves a structured process, as outlined below. It offers the public the greatest opportunity for formal involvement.

4a. **Terms of Reference for the EAR**

The Environmental Assessment Administrator will publish notices in two newspapers inviting the public to submit comments and assist with preparation of the Terms of Reference for the EAR. The Administrator must publish this notice within 12 days after the Minister's decision requiring an Environmental Assessment Report, and the public has 40 days following publication to submit written comments to the Administrator. The Administrator also contacts the appropriate government agencies for their written comments on the Terms of Reference.

The Administrator then contacts the proponent within 5 days after the deadline for public comment to advise on the nature of such comments. The proponent has a subsequent 21 day period in which to respond in writing to the public and governmental input to the Terms of Reference document.

The Environmental Assessment Administrator must then finalize the Terms of Reference within 14 days after considering all comments from the public, the proponent, and the various government departments.

4b. **Preparation and Submission of the EAR**

The proponent has a period of two years to carry out the necessary studies, and to prepare and submit a Draft Report. Extensions of the two year period may be applied for by the proponent and may be granted by the Minister.

Following submission, the Administrator reviews the Draft Report and decides if it is complete and consistent with the Terms of Reference. The Administrator then accepts the Draft Report or informs the proponent that more information is needed before it can be accepted. This decision is made within 12 days of receipt of the Draft Report by the Administrator. The proponent shall provide copies of the final EAR to the Administrator within 30 days of approval of the Draft Report.

4c. **Circulation and Review of the EAR**

At this stage, the Minister has the option of requiring public hearings on the project which

would be conducted by the Environmental Assessment Board, an independent review panel. This decision to refer the project to the Environmental Assessment Board must be made within 10 days of receipt of the EAR.

i. No Formal Hearings Required

The Administrator circulates copies of the EAR to public information centres, government review agencies, and stakeholder groups. A notice advising the public where to obtain copies of the EAR is published in two newspapers. This publication occurs within 12 days after the Administrator has received the EAR.

Written public comments on the EAR may be submitted anytime within 48 days after publication of the notice. The Administrator prepares a report for the Minister, which summarizes the public input and input from the various government departments, and either recommends that the project be approved (as in directive 1) or rejected. The Minister must make this decision to approve or reject the project within 21 days of receiving the Administrator's report.

ii. Environmental Assessment Board Review

Upon submission of the EAR, the Minister can refer the EAR to the Environmental Assessment Board to conduct public hearings. This is generally done for projects that are of significant public concern, or when the project is expected to have a significant social or environmental impact.

If the Minister decides that public hearings are necessary, he must refer the project to the Environmental Assessment Board within 10 days of receiving the EAR. The first step of the Public Hearing phase involves publishing a Notice of Release of the EAR by the Environmental Assessment Board in two newspapers. This must be done within 12 days of referral by the Minister. Public comments are invited at this time, as is input by government departments. The deadline for written public comments is 48 days following publication of the Notice of Release in the newspapers.

The Environmental Assessment Board next publishes a Notice of Hearing, once again in two newspapers, which includes such information as time, place, and purpose of the hearing. The Notice of Hearing must appear in the newspapers within 21 days of the referral of the EAR to the Board, and at least 14 days before the date of the hearing. Formal or informal presentations can be made at the hearing. Generally, the hearing begins with the proponent's description of the project, along with their studies and expert testimony. The proponent and their environmental consultants are available to answer questions and concerns about the project. Any group or individual is also permitted to offer comment at the hearing.

After the Environmental Assessment Board considers the information from all of these stages, it must submit a report along with recommendations to the Minister. This report is due within 110 days of the initial receipt of the EAR from the Minister.

Finally, within 21 days after receiving the report from the Environmental Assessment Board, the Minister must decide if the project is approved (as in directive 1) or rejected (as in directive 5, below).

Directive 5. **The project is rejected**

If review of the environmental information indicates that there is a strong possibility of

adverse environmental or socio-economic impacts, which cannot be adequately controlled or mitigated, the Minister can reject the project.

Drawing:

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8. Guidelines to Required Licences, Leases, Permits and Approvals

Support documents for the appropriate DNR and DOE applications for permits and approvals should be prepared in triplicate. This provides for DNR, DOE and DOL to each have access to the same information package - a convenience for the 'one window' process. With ready access to the complete information package, a specific application can more easily be considered in relation to the others and the time required for the overall process can be minimized.

For mine development and operation, some or all of the following may be required:

Nova Scotia Department of Natural Resources	**Nova Scotia Department of the Environment**
Exploration Licence	Industrial Approval
Excavation Permit	Water Approval
Letter of Authority	Approval for Sewage System
Mining Lease	
Mining Permit	
Milling Permit	
Special Licence/Special Lease	

A list of some of the applicable ***Acts and Regulations*** related to mine development is provided in Appendix A.

Nova Scotia Department of Natural Resources

General information related to the various DNR approvals, permits and licences follows. Where application will be made for a permit, licence, etc., the reader is referred to the ***Nova Scotia Mineral Resources Act and Regulations*** for more detailed information. A flow chart of the normal DNR licence and approval process for mine development is shown in Figure 4.

Figure 4:

DNR approval process for mine development licences and permits.

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8.1 Exploration Licence

An Exploration Licence grants the right to search and prospect for minerals within a

designated area. Activities can include prospecting and geological survey work, drilling and minor excavation work (less than 1 metre in depth and without mechanized equipment). An Exploration Licence has a one year term, and can be extended or renewed subject to requirements of the ***Mineral Resources Act and Regulations.*** An annual fee applies and a report of assessment work is required annually.

An application for an Exploration Licence cannot be accepted for areas that are already subject to an Exploration Licence, Special Licence, Special Lease, or Mining Permit held by another party, or where there is an existing application on file at the Registry of Mineral and Petroleum Titles for any of the foregoing.

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8.2 Excavation Permit/Bulk Sample Authorization/Letter of Authority

An Excavation Permit grants permission under authority of the ***Mineral Resources Act*** for the mineral rights holder to undertake limited surface or underground exploration or bulk sampling (removal of less than 100 tonnes of mineral-bearing material). Extraction of more than 100 tonnes of mineral-bearing material also requires a Letter of Authority from the Director of Mines. To obtain an Excavation Permit, the applicant must submit the application for an Excavation Permit along with a report to DNR that describes all aspects of the proposed undertaking, as follows:

- a map showing the location of the proposed excavation and access route to the site from the nearest public road;
- a statement confirming the consent or agreement of the landowner or tenant;
- a brief report on the size, location and purpose of the bulk sample, mining method, schedule, expected results, equipment to be used, and personnel to be employed;
- a map of the site showing existing surface features, diamond-drill holes, test pits, and any shafts or underground workings;
- a map or drawing showing: major geological features; sample location and dimensions; location and dimensions of proposed workings; location of settling ponds and waste disposal areas; location of all buildings, roads and other infrastructure; and all other major project-specific features; and
- a description of the reclamation work to be conducted upon completion of the exploration or sampling.

To provide for reclamation of the area that may be disturbed, DNR may require a bond or other security.

Work conducted under an Excavation Permit must be conducted in compliance with the ***Occupational Health & Safety Act and Regulations*** and the ***Environment Act and Regulations.***

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8.3 Mining Lease

A Mining Lease grants the exclusive right to some or all of the mineral resources in a specified area but does not allow any field activity beyond basic exploration or that which can be done under an Excavation Permit/Letter of Authority. A Mining Lease has a 20 year term and is renewable. A lease rental must be paid and an Annual Report on Operations (Form 15) filed with DNR annually.

To obtain a Mining Lease, the applicant must:

- show that an economic mineral deposit exists within the proposed lease area,
- provide a written commitment to commence production,
- commit to obtaining a Mining Permit within two years of obtaining the lease, and
- pay the first year's lease rental fee in advance.

The applicant for a lease must also submit a report containing the following information to DNR:

- a general location map of the area showing claim boundaries, surface rights boundaries, nearby roads, buildings, powerlines, water courses, topography and other surface features in the vicinity of the deposit;
- a map showing the location of all drillholes, trenches, test pits and sample locations;
- a geological map showing the known location of the deposit and its relationship to the host geological units;
- a geological cross-section and longitudinal sections through the deposit;
- a table of ore reserves, including:
  i. grades and quantities, categorized as proven, probable or possible;
  ii. a description of the method of calculating the reserves;
  iii. a statement of the specific gravity used with supporting rationale;
  iv. a statement of the cutoff grade used and reason for its use; and
- a copy of the survey plan showing the boundaries of the lease.

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8.4 Mining Permit

A Mining Permit gives the permit holder the right under authority of the ***Mineral Resources Act*** to mine some or all of the mineral resources described within the Mining Lease, subject to the terms and conditions of the Permit. Work conducted under a Mining Permit must be conducted in compliance with the ***Occupational Health & Safety Act and Regulations*** and the ***Environment Act and Regulations.*** To obtain a Mining Permit, the applicant must submit an application and report that describes the proposed mining operation to DNR. The report must include:

- maps and descriptions of the site, including significant surface features such as lakes, rivers, roads, power lines, existing works, pits and underground developments; property plans containing a map showing surface rights ownership; and copies of all leases, deeds and agreements with surface rights owners.
- mining plans that contain:
  i. a general map showing the location of existing and proposed mine workings, surface facilities, water diversions, settling and treatment ponds and ore and waste storage areas;
  ii. a table of ore reserves in the proven and probable categories for the area;
  iii. engineering drawings, a description of the proposed mining methods, and schedules for all surface and underground development work;
  iv. a description of the proposed mining equipment to be used and the number and skills of workers required during each phase of development;
  v. for underground operations, the engineering drawings and description for ventilation, roof support, dewatering, and distribution of services during each phase of development; and
  vi. a description and location of all facilities for the production and storage of

explosives.

- plans for storage of tailings and waste rock containing:
  i. a description of the design and operation of all tailings and waste disposal facilities, including site plans and descriptions of all facilities and equipment to be used or constructed;
  ii. a description of the methods to be used for monitoring discharge from the tailings and waste disposal systems;
  iii. a description of the methods to be used for reclamation of the mine site, waste dumps, tailings ponds and other areas disturbed by the project, including a site plan and description for post operational monitoring.
- evidence of liability insurance in an amount satisfactory to DNR.
- information on the financial viability of the proposed mine, including capital and operating costs, sources and amounts of financing, cash flow projections, and marketing plans for the product.

If the applicant for a Mining Permit is a corporation, information regarding the ownership, control and financing of the company must be included with the application.

Final reclamation of the site to the satisfaction of DNR and DOE is the responsibility of the operator. DNR requires a bond or other security before issuance of a Mining Permit as insurance that the reclamation work will be conducted. The amount of the security will be calculated on a site-specific basis and will be an aggregate of the cost to conduct the necessary reclamation activity as required, including:

- removal of buildings and structures,
- removal or burying of foundations,
- capping or filling of pits, declines and shafts,
- stabilization of tailings-disposal sites and drainage-containment facilities,
- surface contouring,
- establishing proper site drainage, and
- revegetation.

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8.5 Milling Permit

A Milling Permit grants the right to process ore under authority of the ***Mineral Resources Act.*** Work performed under the Milling Permit must be in compliance with the ***Environment Act and Regulations*** and the ***Occupational Health & Safety Act and Regulations.*** To obtain a Milling Permit, the proponent must prepare the application along with a report that details the proposed milling operation. The report must include:

- a general description of the buildings.
- a description of the processing methods including a list of processing equipment,
- a flow sheet of the process showing metallurgical balances including material and water mass balances and water sources and losses,
- a description of all laboratory facilities to be attached to the mill including technical equipment and analytical capability,
- the results of metallurgical studies or test work,
- the number and skills of workers to be employed at the mill, and
- a description of the methods to be used for the reclamation of the mill site, including a site plan and a description of post-operational monitoring.

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8.6 Special Licence/Special Lease

Section 22 of the ***Mineral Resources Act*** provides that the Minister of Natural Resources may withdraw any lands from licensing for all or certain minerals, and establishes a mechanism for special licensing. In 1975 the Minister of Mines (now Natural Resources) withdrew all lands containing coal, salt, potash, and uranium from the regular licensing process. Once withdrawn, these lands can only be explored or mined for these minerals pursuant to a Special Licence or Special Lease granted by the Minister of Natural Resources with the approval of the Governor in Council (Cabinet). Such a Special Licence or Special Lease is subject to the ***Mineral Resources Act and Regulations*** and may contain any terms and conditions as are approved by the Governor in Council.

Nova Scotia Department of the Environment

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8.7 Industrial Approval

In Nova Scotia, an Industrial Approval is required under the Activities Designation Regulations for industrial activities that have air, liquid, or solid waste disposal requirements. These include activities associated with minerals, mining and processing.

To facilitate the review of each Industrial Approval application, supporting documentation must be submitted to the Nova Scotia Department of the Environment, including:

- certified copies of the Articles of Incorporation of the company, including a copy from the Registry of Joint Stock Companies showing the company's official name, its president and CEO, its agent, and the fact that the company is registered in good standing.
- a comprehensive, written description of the industry proposed and each unit process or step in production, including:
    i. the nature/type of industry,
    ii. the size and capacity of the industry,
    iii. the quality and quantity of raw materials and water used by the process,
    iv. identification of where each discharge point to the environment originates,
    v. quantities of hazardous materials anticipated for use in the process and appropriate material safety data sheets, and
    vi. description of blasting methods and schedule, if applicable.
- a site plan (scaled drawing, minimum scale 1:2,000) of the property on which the industry will be situated, including:
    i. the property boundaries,
    ii. the contours of the site and adjacent properties,
    iii. the locations of all relevant industrial structures, including buildings, stockpiles, disturbed lands, pipelines, stacks, waste discharge points, treatment structures and proposed monitoring points;
    iv. the location of nearby watercourses, dwellings, wells and public roads and highways, and
    v. the location, orientation and final contours of any pit or quarry.
- engineering drawings, plans and specifications, including:
    i. plans and drawings for structures and equipment used to treat wastes resulting from industrial processes,

ii. sufficient data to demonstrate the feasibility of a process to supply satisfactory treatment,
iii. reports on the proposed treatment facilities indicating design capacities, flows and concentrations of wastes expected to be emitted to the environment, and
iv. calculations, factors and parameters used in the design of waste control systems.

- a description of all liquid effluents discharged from the process or property, including:
  i. the quantity and quality of all surface discharge waters that have contacted unstabilized areas prior to discharge,
  ii. the quantity and quality of each individual liquid effluent discharge before treatment,
  iii. the quantity and quality of each individual liquid effluent discharge after treatment, and
  iv. the quality should include, if relevant, the concentration or levels of pH, temperature, chlorine residual, 5-day biochemical oxygen demand, chemical oxygen demand, suspended solids, acute toxicity, heavy metals, total petroleum hydrocarbons, total oil and grease, total dissolved solids, ammonia and phosphorus.
- a description of all air emissions discharged from the process stacks, vents, etc., including:
  i. the stack height above base (metres), elevation at base (metres), stack top inside diameter (metres), flow velocity through the stack exit (metres/sec.), temperature of stack gas (°Celsius) at exit,
  ii. the average daily concentrations of total particulate, specific particulate, and gases (general and odorous) before and after treatment,
  iii. the maximum daily concentrations of total particulate, specific particulate, and gases (general and odorous) before and after treatment,
  iv. the quality and/or concentration should include, if present, but not necessarily be limited to, carbon monoxide, carbon dioxide, oxygen, total suspended particulates, oxides of nitrogen, hydrogen sulfide, sulphur dioxide and polyaromatic hydrocarbons, and
  v. the capacity, type of fuel used, sulphur content of fuel, higher heating value of the fuel, monitoring equipment to be employed and soot blowing schedule if the process is a boiler or heating plant.
- a description of all solid wastes that require disposal, including:
  i. the quantity of all solid wastes,
  ii. the quality of all solid wastes including an indication of whether they are considered hazardous in accordance with the regulatory classification system that is used to determine whether goods are dangerous for the purposes of transportation within Canada. If necessary CGSB provisional standard No. 164-GP-1 MD leachate extraction procedure data should be submitted,
  iii. the location where solid wastes will be disposed,
  iv. how solid wastes will be disposed of,
  v. storage quantities of all wastes prior to disposal, including storage site capacity and schedule of disposal, and
  vi. supporting geotechnical and hydrological findings, if waste is to be landfilled.

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8.8 Water Approval

A Water Approval is required under the Activities Designation Regulations for the use or alteration of a watercourse or a water resource. This approval includes, but is not limited to, withdrawal or diversion of water in an amount greater than 23,000 litres per day; storage of

water in amounts of 25,000 cubic metres or greater; construction or maintenance of a dam, culvert, bridge, causeway, wharf, weir, or fishway; and modification of a surface water course.

To facilitate the review of a Water Approval application, supporting documentation must be submitted to the Nova Scotia Department of the Environment, including:

i. the applicant's name and address, the contractor's name and address, and the location of the proposed work,
ii. a site map of the proposed work area,
iii. details of the proposed work, structures, and/or activities and measures to protect the watercourse, and
iv. a sketch of proposed work and watercourse location, hydrology report, and plans, drawings and specifications as applicable.

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Appendix A

The following list identifies some of the Acts and Regulations related to exploration and mining activities. Readers are advised that they should refer to the Acts for a complete list of all regulations.

Department of Natural Resources

Act	Mineral Resources Act
Regulations	Mineral Resources Regulations

Department of Labour

Act	Coal Mines Regulations Act
Regulations	Fees for Certificates of Competency Regulations
Act	Metalliferous Mines and Quarries Regulation Act
Act	Occupational Health & Safety Act
	Appeal Panel Regulations
	Adjudication Committee Regulations
	Construction Safety Regulations
	Disclosure of Information Regulations
	Fall Protection and Scaffolding Regulations
Regulations	First Aid Regulations
	General Blasting Regulations
	Industrial Safety Regulations
	Occupational Health Regulations
	Temporary Workplace Traffic Control Regulations
	Workplace Hazardous Materials Information System Regulations

Department of the Environment

Act	Environment Act
	Environmental Assessment Regulations
	Activities Designation Regulations
	Air Quality Regulations

Approvals Procedure Regulations
Dangerous Goods Management Regulations
Emergency Spill Regulations
Pesticide Regulations
Regulations Petroleum Storage Regulations
Sulphide Bearing Materials Disposal Regulations
Used Oil Regulations
Water and Wastewater Facility Regulations
Well Construction Regulations

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